# Section III.  Electronic Government Initiative

The transformation from traditional government to electronic government is one of the most important public policy issues of our time.  In the next decade, government will change more than it has in the past century.

As government moves toward becoming both service provider and policy maker, eGovernment requires that it make radical changes to the delivery of services to its citizens, the public, businesses, employees and other governments.  It involves a multi-channel service delivery strategy in which services are available via the web, telephone or over the counter.  Internal processes must be standardized and long-term goals addressed for realizing services delivery.

Government services are different from private sector business in terms of its customers, incentives, risk taking, organizational structure and motivators.  Through technology, government has the potential to create significant value in improving its services via customer self service, single face interactions, high availability and business process improvement.

To be successful, an eGovernment initiative must deal with the following:

- Leadership
- Electronic Records Management
- Privacy and Security Concerns
- Governance
- Justification
- Funding
- Performance Measurement
- Competency/Sourcing
- Contract Management
- Project Management
- Relationship Management
- Technology

## A.  Status of Business Programs

As both a health service provider and policy maker, the Department of Health and Mental Hygiene has numerous functions involving citizen access and customer satisfaction.  The Department's eGovernment Baseline Inventory contains over 1,750 business services.  DHMH administrations, facilities and local health departments have been diligent in planning for the electronic delivery of health care information and services.

The DHMH Health Information Coordinating Council has established an e-Government Workgroup to coordinate the electronic government initiative working in conjunction with the Information Resources Management Administration.  The initiative has established the following vision, mission and goals.

**Vision:**

DHMH will be recognized as a national leader in the electronic delivery of Health care information and services.

**Mission:**

Improve Maryland's public health utilizing electronic technology to enhance the quality of care, access, policy, infrastructure and customer service.

**Goals:**

\*    Ensure that the required eGovernment perpetual inventory of information and services is properly prepared and entered into the DBM/ITAC website.

Ensure that the appropriate projects for eGovernment are initiated and completed so that DHMH complies with the Electronic Government Initiative. Specifically, that the following percentages of DHMH services and information are to be available electronically:

**50% by 12/2002    65% by 12/2003    80% by 12/2004**

- Monitor and evaluate the progress of DHMH toward compliance with Maryland's Electronic Government Initiative

- Develop and convene additional work groups and committees as necessary

- Inform DHMH organizations of the requirements for and compliance with Maryland's Electronic Government Initiative

- Develop guidelines and recommendations to assist DHMH organizations with their identification of eGovernment opportunities

- Provide assistance to DHMH organizations in determining how to plan their eGovernment projects

The DHMH eGovernment Workgroup has created a web Q/A subworkgroup to carry out different aspects of the initiative:

**Website Quality Assurance** – the purpose of the subworkgroup is to assess, plan and implement strategies for continuous quality assurance of the DHMH Internet/Intranet Websites. The subworkgroup's tasks include:

- Monitor consistency of information across websites within the DHMH domain.

- Review websites within the DHMH domain to work with administrations to monitor the accuracy and quality of their sites.

- Monitor adherence to DHMH's Web Development Guidelines and Operational Policy.

- Establish a process for addressing inconsistencies and inaccuracies on DHMH websites.

## B. eGovernment Initiative (50/65/80)

The Department of Health and Mental Hygiene has prepared the State's largest inventory of potential web enabled public services and information. The inventory includes information on the responsible DHMH administration, a description of the function and the priority level. **(Attachment D)**

## C. Status of Information Technology Systems and Services

The following information is provided concerning the Department of Health and Mental Hygiene's information technology program in support of the DHMH mission.

### 1. Content

An agency as large as DHMH has an extensive amount of resident information. **Attachment E** is the DHMH Data Systems Directory. The Directory lists the

names of each data system and contains a brief system description.  The following
is a list of DHMH systems that are in various phases that range from the initial
RFP/Task Order phase to the implementation, warranty and maintenance phases.

1.  Developmental Disabilities Administration – Provider Consumer Information
    System II
2.  Office of Health Care Quality – Provider Licensing and Complaint Information
    System
3.  AIDS Information Management Software System
4.  Vital Statistics Administration – Vital Records Registry System
5.  Community Health Administration – Immunization Network System
6.  Family Health Administration – INPHO Grant – Public Health Data Network
    System
7.  Family Health Administration – Breast and Cervical Cancer Screening System
8.  Family Health Administration – Women Infants and Children Windows System
9.  Information Resources Management Administration – Convert client server based
    Boards and Commissions "Licensing" applications to online Internet based
    "Licensing" applications
10. Alcohol and Drug Abuse Administration – Web based Electronic Substance
    Abuse Management Information System (eSAMIS)
11. Alcohol and Drug Abuse Administration - Using data gathered in eSAMIS,
    conduct measurement and modeling of treatment outcomes.
12. Pharmacy Board – Convert client server based "Licensing" system to online
    Internet based "Licensing" system
13. Board of Nursing – Convert client server based "Licensing" system to online
    Internet based "Licensing" system
14. Family Health Administration – Maryland Primary Care System

## 2.  Transport

The Department moves information via telecommunication lines, including Local Area
Network (LAN), Wide Area Network (WAN), video conferencing, audio conferencing
and satellite downlink.  **Attachment F** is the DHMH Telecommunications Plan.

The DHMH telecommunications infrastructure is comprised of **Local Area Networks
(LAN)** at each of the facilities and a Wide Area Network (WAN) that provides data access
the DHMH Headquarters.  The LANs are used primarily to support daily administrative
functions and to provide user access to DHMH applications.  The DHMH LAN includes
routers, switches, servers, mid-range computers, firewalls and gateways to provide access
to the Annapolis Data Center mainframe.  The DHMH Headquarters LAN is the hub for most
users and facilities.  DHMH is currently in the process of redesigning the Headquarters LAN
to better support all users and make a more robust network supporting Internet and web
enabled access.  The redesign includes full site redundancy and better firewall protection.
**Wide Area Network (WAN)**

The WAN provides access to financial data, health related applications, the Internet, Intranet
and email via DHMH Headquarters.  DHMH is in the process of moving from a
Mainframe based Environment to a Client-Server Environment, using the Oracle
Database and Microsoft SQL and the Microsoft Office Professional Suite as standards.
The Administration has implemented a private State-wide frame-relay Wide Area Network.
The WAN, with a T3 frame-relay at it core, connects the county Health Departments,
State Hospital Centers, DDA Regional Offices, as well as the remote headquarters
buildings to the O'Conor building, ADC, DHR, and the Internet. The WAN is
protected from the Internet by two Gauntlet firewalls.  The WAN was constructed
based on the Statewide Policies described in the State of Maryland Information
Technology Master Plan.

**Audioconferencing/Videoconferencing/Satellite**

The DHMH distance learning systems are used in a variety of situations including training, communication and virtual meetings in multiple locations. It can also be utilized to coordinate responses, promote informed decision making and support the allocation of critical resources in the event of a public health emergency.

Public Health Distance Learning at DHMH is primarily focused in four priority areas of creating Dynamic and interactive opportunities for both improved communication and learning.

Audio Conferencing is actively used for numerous administrative and work situations that have allowed many Public Health professionals the opportunity to avoid traveling to the central office in order to attend regularly scheduled meetings. Although DHMH does not yet own its own audio bridge, it rents space for this service from AT&T or utilizes federal agency equipment resources, when available. Investing in an audio bridge would be an extremely helpful asset to all of the 80+ Public Health-related facilities and staff throughout the state.

Large Conference Room Video Conferencing capabilities (operating on three ISDN lines) are rapidly expanding throughout the network of the 24 Local Health Departments. This real time audio and video interactive communication and learning tool is being used to connect regularly scheduled meetings of the Health Information Coordinating Council, HICC Workgroups, the Deputy Secretary for Public Health's Roundtable monthly meetings as well as for other regularly scheduled planning meetings such as Bio-Terrorism Preparedness. DHMH will continue to explore ways to provide video conferencing and video bridging services for the benefit of distant counties.

Live satellite broadcasting is also available at the DHMH site. This service provides Public Health employees with an excellent opportunity to view national live satellite broadcasts that are downlinked directly into the DHMH headquarters facility for either viewing or recording. The last and most rapidly developing area in Distance Learning opportunity is related to the learning capabilities on the Internet. The rate of change and innovation in this area is measured in months (not years – as in most other areas of change.) The trend to wireless connectivity has truly fueled a new way of working, communicating and learning that wasn't even on the horizon eight years ago. The impact of Public Health Distance Learning innovation is being felt throughout every level of this organization. As DHMH places increased value on becoming a Learning Organization, the value and importance of Public Health Distance Learning will be realized in every DHMH facility in the State.

## 3. Enhanced Services

DHMH provides value added services to make information resources useful to and usable by its customers:

### Help Desk

The Technical Support Help Desk was established in order to provide DHMH computer users with one number to contact for technical support. The support areas

provided includes, but is not limited to:

- Hardware and software installation, troubleshooting, & repair
- LAN/WAN administration, installation, & troubleshooting
- Mainframe and Midrange support

The Help Desk utilizes MAGIC TSD software by Network Associates, Inc. (NAI). This web-based software allows technical support staff to track service requests, generate work orders, perform remote control of the user's desktop for troubleshooting/repair, and, put in place reporting features for use by management. In the future, users will be able to Log a call with the Help Desk via Groupwise and also log a call and check status via the Web. The ultimate goal is to bring other administrations onboard as users of this system.

### DHMH eGovernment Infrastructure Plan – (**Attachment G**) The document
is the blueprint for the DHMH's future infrastructure services and support. It is also the implementation plan for **DHMH's Architecture and Standards (Attachment H)**

## Information Security Protection for eGovernment Services

DHMH has a set of comprehensive information protection policies and procedures in place, and requires all personnel to abide by these directives. As part of those requirements to meet our Departmental Goal and the operational needs for the <u>confidentiality, integrity, and availability</u> of information resources we have classified information into three distinct types, and have directed that reasonably commensurate levels of protection be provided for these valuable
resources. This protection is based on respective risks and consequences of disclosure.

(1) **Public Information** - Information in the public domain with no federal, state, or proprietary restrictions on its use or disclosure;
(2) **Proprietary Information** - Information having competitive or intrinsic value in ownership, that is protected under federal or state laws or regulations or by contractual obligations, or information, although designated as public, that may be restricted by method of access or level of detail and not provided unless requested for legitimate business reasons;
(3) **Protected Information** - as defined in federal laws and regulations (e.g. HIPAA), and in Maryland law and regulation; - includes personally identifiable/linkable information that requires the highest level of protection.

The Department currently provides information security protection as described below for these classes of information based upon type and reasonably commensurate with the risk of disclosure.

**Protection of Public Information**: Public information is protected to assure the integrity of the information by keeping this information from accidental or intentional manipulation or change. We also assure the availability of the information by keeping it reasonably safe from denials of service attacks or other attempts to deny access to the information when needed. Public information maintained outside Department firewalls is protected by (1) acceptable firewall technology equal to or better than the Department or state standard, (2) continuous

software upgrades to server operating and application software, (3) the limitation of unnecessary internet services on the servers, (4) adequate, restorable backups, onsite and off-site, (5) physical and environmental security for server location and backup sites, (6) and strict adherence to Department and state mandated security procedures.

**Protection of Proprietary Information**: Proprietary information has the same integrity and availability protection as public information, with additional care to assure confidentiality.  In addition to the preceding protective standards for Public information, proprietary information is further protected by identifying and permitting appropriate users to access information limited by access control passwords and user identity.

**Protection of  Protected Information:** Protected information requires the highest level of protection to assure continued confidentiality, integrity, and availability of the resources.  Such protection includes all of the above approaches and additionally requires: (1) two-part or strong identification using a password and a token or smart card, (2) a digital certificate on a smart card or other removable media, or on the hard drive, (3) the use of a digital signature process using the preceding resources, (4) the use of Lightweight Directory Access Protocol (x.509) for management of these resources, (5) encrypted transmission using Secure Socket Layers technology and/or the use of a Virtual Private Network, and (6) the installation of administrative procedures that support these resources.

## DHMH HARDWARE/SOFTWARE STANDARDS

### Hardware Standards

The purpose of these standards is to guide, in a consistent manner, the acquisition and support of standard information technology (IT) hardware configurations by the Department of  Health and Mental Hygiene (DHMH) in order to achieve State IT goals.  This standard is to be implemented upon the acquisition of new hardware. However, it is recognized that the acquisition of new hardware may require a phase-in period for full compliance because of compatibility and other impacts of replacing or upgrading legacy hardware.

DHMH has defined hardware configurations for the efficient and productive acquisition and use of IT computing hardware in order to accomplish its mission and program goals.

In developing minimum hardware configurations, DHMH considered the following criteria:

- Total lifecycle cost
- Long –term support
- Interoperability
- Compatibility
- Scalability
- Availability/Accessibility
- Functionality/Performance
- Security
- Other specific criteria

The following configurations are defined as the minimum acceptable configurations for DHMH based on an analysis of our requirements:

- **PERSONAL COMPUTERS**

  Standard Desktop PC Workstation
  Intel Pentium III, 600mhz Central Processing Unit (CPU)
  64MB RAM (Memory)
  6.0GB Hard Drive (Data Storage)
  4MB VRAM (Video Memory)
  3 ½ Diskette Drive
  CD ROM Drive
  10/100 Mbps Ethernet Adapter
  15" Color Monitor

  Keyboard
  Mouse

  Standard Laptop PC Workstation
  Intel Pentium III, 450 mhz Central Processing Unit (CPU)
  64MB Ram (Memory)
  6.0GB Hard Drive (Data Storage)
  3 ½ Diskette Drive
  CD ROM Drive
  12.1 TFT Screen
  56K Modem
  10/100 Mbps Ethernet Adapter
  Mouse
  Windows Operating System – See Software Standards

- **PERIPHERALS**

  Laser Printer – Network – Black & White
  Dual Input Bin
  10/100mbps Ethernet Adapter
  Designated "Network" Model
  15 Pages Per Minute
  1,200 x 1,200 dpi
  8MB RAM

  Laser Printer – Network – Color
  Single Input Bin
  10/100mbps Ethernet Adapter
  Designated "Network" Model
  16 Pages Per Minute, Black
  3 Pages Per Minute, Color
  600 x 600 dpi
  32MB RAM

  Inkjet Printer – Network – Color
  Single Input Bin
  10/100mbps Ethernet Adapter
  Designated "Network" Model
  8 Pages Per Minute, Black
  4 Pages Per Minute, Color
  600 x 600 dpi
  24MB RAM

  Laser Printer – Standalone
  Single Input Bin

10 Pages Per Minute
600 x 600 dpi
4MB RAM

Inklet Printer – Standalone
Single Input Bin
8 Pages Per Minute, Black
3.5 Pages Per Minute, Color
1,200 x 1,200 dpi

Desktop/Laptop Network Adapters
10/100 Mbps 3COM or SMC, PCI if possible

**Software Standards**

The purpose of these standards is to guide the acquisition and support of commercial off the-shelf (COTS) software by the Department of Health and Mental Hygiene (DHMH) in order to achieve State IT goals. This standard is to be implemented upon the acquisition of new software. However, it is recognized that the acquisition of new software may require a phase-in period for full compliance because of compatibility and other impacts of replacing or upgrading legacy software.

DHMH has defined minimum software configurations for the efficient and productive acquisition and use of IT computing hardware in order to accomplish its mission and program goals. These standard software configurations are to be used on hardware specified in the DHMH Hardware Standard. These hardware and software configuration standards are interrelated and have been developed to reflect an overall IT architecture that complies with the State IT Master Plan.

In developing minimum software configurations, DHMH considered the following criteria:

- Total lifecycle cost
- Maintainability
- Interoperability
- Portability
- Scalability
- Availability/Accessibility
- Reusability
- Functionality/Performance
- Security
- Other specific criteria

The following configurations are defined as the acceptable COTS software for DHMH based on analysis of our requirements:

Desktop PC Workstation
Windows 2000 (Microsoft). Current statewide standard for use on all newly purchased hardware.
Windows 9X (Microsoft). Can be utilized until such time that the hardware is replaced, then goes to statewide standard.

Network Server
Netware 5.1, or higher (Novell)

- **PERSONAL PRODUCTIVITY**

  Desktop Virus Protection:
  Selection is deferred to the individual user for standalone systems or to the network Administrator for networked systems.

  Desktop Statistical Analysis:
  SAS 8.0, or higher (SAS Institute)
  SPSS (SPSS)
  EPIINFO (CDC)

  Email:
  GroupWise 5.5, or higher (Novell)

  Office Suite:
  Office 2000 Professional or Standard Edition (Microsoft).  Current statewide standard for use on all newly purchased hardware.
  Office 9X (Microsoft).  Can be utilized until such time that upgrade monies/hardware are made available, then move is made to the statewide standard.

  Web Browser:
  Netscape Navigator 4.5, or higher (Netscape)
  Internet Explorer 5.0, or higher (Microsoft)

- **DATA MANAGEMENT**

  Large Database Development
  Oracle 8, or higher (Oracle)

  Small Database Development
  Access 2000 (Microsoft).  However, utilization of Access 97 is allowed until such time that upgrade monies/hardware are made available, then move is made to the statewide standard.